



CDM: Recommendation Form for Small Scale Methodologies (version 01)

(To be used for presenting questions/proposals/amendments to the simplified methodologies for small-scale CDM project activity categories)

Date of SSC WG meeting:	16–19 June 2009, SSC WG 21
Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):	Applicability of AMS-I.D for project activity involving an addition of back-pressure turbine generator in existing cogeneration system
Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.	AMS-I.D version 13
Name of the authors of the query:	Bhawna Singh Institution: Agrinergy Consultancy Pvt Ltd bhawna.singh@agrinergergy.com ; robert.taylor@agrinergergy.com

Summary of the query:

Please use the space below to summarize the query related to SSC methodologies/categories SSC Modalities and Procedures provide recommendation/analysis of the SSC WG.

Original text from PP:

The clarification relates to the project activity described in **SSC_154 and SSC_229**. Clarification is sought whether the project activity is applicable to use the methodology AMS ID as the DOE has again questioned whether the project fits the methodology. In particular whether the project satisfies point 1 of the applicable methodology and whether point 4 is applicable and if so is also satisfied.

The scenario associated with the project activity is:

1. A new sugar factory where only two turbine generators are installed to be used as captive source of electricity for the new sugar factory
2. The project activity which results in a third turbine generator being installed at the site of the new sugar factory.

The three turbines were all ordered together (purchase order attached with the clarification) clearly highlighting the fact that the project is not an addition to an existing unit but was planned with the new sugar factory.

We believe the project activity satisfied point 1 of the applicable methodology (AMSID) which states - This category comprises renewable energy generation units, such as photovoltaics, hydro tidal/wave, wind, geothermal and renewable biomass, that supply electricity to and/or displace electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit.

The project activity is a renewable energy generation unit that supplies electricity to the grid. Also SSC WG response to clarification SSC_229 stated –

The baseline for this project includes the possible scenarios for adding additional generation to the grid rather than generation of power within the boundary or generation of power at consumer sites outside the boundary.

However if the project is considered as an addition then point 4 of the methodology must be satisfied:

“In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.”

The project activity is a 10MW backpressure turbine generator and hence satisfies the 15MW criteria. In the project proponents view the project activity is physically distinct since it can generate electricity without the operation of the existing renewable power generation facility i.e. the two captive turbine generators. The captive power plant is not grid connected. Hence the operation of the project activity is independent of the captive operation and does not affect their mechanical or electrical characteristics. We therefore believe the project is physically distinct.

Point 10 of the methodology states –

In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, where the existing and new units share the use of common and limited renewable resources (e.g. streamflow, reservoir capacity, biomass residues), the potential for the project activity to reduce the amount of renewable resource available to, and thus electricity generation by, existing units must be considered in the determination of baseline emissions, project emissions, and/or leakage, as relevant.

Whilst it could be considered that the existing and new units share the renewable resources there will be no reduction in steam output to the sugar factory and captive turbines due to the setting up of the project activity. Diversion of renewable resources would imply that the captive units would not generate sufficient electricity to supply the adjacent sugar factory which in turn would have to import electricity from the grid. Given the purchase price of electricity is greater than the sales price this will never be the case and the PDD will include monitoring of electricity imports to confirm/adjust for this. Moreover, the only boilers at the plant are the biomass boilers so it would not be possible to divert biomass generated steam to the new turbine and replace with fossil fuel generated steam. Again the PDD will include monitoring of boilers to confirm no new fossil fuel based boiler is installed. In summary we therefore seek to clarify:

1. Whether the project activity is applicable under point 1 of the methodology?
2. If not then whether the project activity needs to consider point 4 and if so is it viewed as being physically distinct?

Additional Information Provided by the PPs:

Surin sugar factory and Surin Electric Company are promoted by the same group. Surin Electric Co was set up solely to export power to the grid. Since it is the same promoters, all the turbines were ordered together under one company name i.e. Surin Electric. The revenue of Surin Electric is only from the sale of power to the grid.

If the baseline was the captive power plant in the sugar factory then Surin Electric would not even exist. No power is provided to the sugar factory from this company. A power purchase agreement has been entered into with Electricity Generating Authority of Thailand through which Surin Electric will export all the produced power to the grid from the 10MW turbine generator, after subtracting auxiliary power.

To clarify further, the sugar factory has set up three boilers and two TG (not grid connected) for captive consumption. Surin Electric Co has set up only one TG of 10MW i.e. the project activity.

PP apologized for the confusion created by the PDD. The information in SSC_229 is correct regarding the steam passed through PRDS. It is the excess steam that is passed through the PRDS and not the backpressure steam.

Recommendation by the SSC WG:

Please use the space below to provide amendments/change (in your expert view, if necessary).

Please refer to paragraph 33 of the meeting report of the SSC WG 21

(http://cdm.unfccc.int/Panels/ssc_wg).

Answer to authors of query by the SSC WG:

Please use the space below to provide answer to the authors of the above query.

The small-scale working group of the CDM Executive Board would like to thank the author for the submission.

The SSC WG agreed to clarify that AMS-I.D is not applicable to the project activity because of the following reasons:

The SSC WG analyzed the information received with the present submission together with the previous submissions (SSC_154 and SSC_229), and noted inconsistencies and incomplete information across the submissions. In spite of these, the SSC WG assessed the submission based on the following understanding:

- 1) The facility has three boilers installed where biomass residues are used as fuel.
- 2) The steam produced is supplied to two turbines and to one pressure reducing device (PRDS).
- 3) The low pressure steam (after turbines and PRDS) is supplied to a sugar factory.
- 4) The project activity is the installation of an additional turbine, replacing the PRDS.
- 5) The same amount of biomass residues is used before and after the implementation of the project activity.
- 6) The production of steam output from the boilers does not change (before and after project activity implementation).

The SSC WG is of the opinion that the project cannot be considered under Type I (renewable energy) as the project activity is the installation of a new electricity generation unit, which will not result in the direct conversion of energy from a renewable source. It should be noted that the same amount of biomass is used before and after project activity.

It should be noted that the SSC WG assessment did not cover several other pertinent aspects of the proposed CDM project activity, which should be carefully considered by the project proponent, for example:

- The likelihood of the baseline scenario being the utilization of all three back pressure turbines especially considering that they were ordered together;
- The submission does not address the changes in the production of electricity;
- The service level of the steam supplied to users is not clear. For example, how much useful steam is supplied in both the baseline and the project activity scenarios to the sugar processing plant?
- There is a possibility that the amounts of heat supplied to the sugar installation will be compromised by adding a back pressure turbine to replace a PRDS. This issue will be influenced by the efficiencies of both the installations/units in the baseline and project activity scenarios. A full energy balance is not provided.



Signature of SSC WG Chair

(Hugh Sealy)

Date: 19/06/2009



Signature of SSC WG Vice-Chair

(Peer Stiansen)

Date: 19/06/2009

Information to be completed by the secretariat

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